

Business Intelligence

By

Daniel Amonkou

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Dr. Russell K. Baker

Jacksonville University

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Abstract

Business Intelligence system helps businesses reorganize efficiently most aspect of our data management and analysis processes. From Customer relationship management (CRM) to Auditing Information system, Business Intelligence has proven to be a valuable tool for decision making. In our analysis, we will discuss the process and implementation involved in acquiring valuable Business Intelligence, backed by some examples of leaders in the industry. Though, this tool is quite helpful, it does raise some concerns. Hence, we will discuss some of the limitations encompassing Business Intelligence.

Introduction

We often hear in the media the expressions: *Real-time Business Information*; or *Crunching Numbers*; what are these actually about? Certainly, they are referring to the concept of Business Intelligence. So, what is Business Intelligence? Indeed, this concept, according to different paradigms has several definitions; but simply put, Business Intelligence refers to information technology management through software applications that handle data collection, integration, and analysis. It is an umbrella term that describes "concept and methods to improve business decision making by using fact-based support systems" (Howard Dresner, 1989). It enables businesses to analyze data and trends for new opportunities, to optimize their streamlines by reducing inefficiencies throughout the organizations. Though, this tool has shown lots of potentials, it has proven challenging to implement at times. In this perspective, we will study this concept by answering those fundamental questions a savoir: how is Business Intelligence implemented? Next, what are some examples of leaders in Business intelligence services? What are the limitations to be cautious of?

Business Intelligence Implementation Process

Before the advance in Business information technology, organizations managed data on non-automated source. This lack of computing resources has proven challenging for those companies forced to make decisions for the most part based on intuition or perhaps hiring expensive consultants to run complex reports. Now, all types of organizations, from restaurant chain to Logistics transportation and Supply Chain, use BI for decision making. From organizing financial data, to analyzing market trends for new opportunities, Business Intelligence tools provide layers of multifunction. However, how to effectively implement this system within an organization? First, one must identify and define the problems and opportunities through System thinking strategy (e.g. SWOT analysis). The key is to clearly evaluate and define what the needs of the business are in order to choose the most relevant information - Quality of Data is an imperative. Next, one must establish a model of decision support system and infrastructures. Once, the area of interest is defined, the following step is to investigate the specific Business Intelligence software and hardware. The cost and the quality aspects are crucial as well. How much will it cost over time in software and hardware upgrades, patches, back-up, trainings and maintenance to mention a few? How to successfully integrate or incorporate the new system with the already existing one? According to O'Brien and Marakas (2008), there are four main methods system conversion strategy implementations: the parallel conversion, the pilot conversion, the phased method and direct conversion. (*Management Information System, 8th Ed, 2008, Page 475*). The most used is the phased conversion as being the most practical. It is a step by step integration process, where one module system is integrated each time until full system integration. The least practical is the direct conversion method, where the old system is directly replaced by the new one without major preliminary case testing. A complete oversight of IT architecture and support of all end users at all level is required for the implementation process.

Business Intelligence service provider Companies

Lot of companies in different marketplaces such as ACCENTURE, SAS, IBM COGNOS, ORACLE, SAP, GOOGLE, MICROSOFT are leading the Real-time Business Intelligence offering varieties of applications that can track sales, services, Customer Relations management (CRM), marketing, financial services, human resources, supply functions, and manufacturing – such as Oracle which is one of the pioneer in database management system software with data warehousing, data mining, neural networking. Oracle usually supports large enterprises and government entities through different platforms. Another example is SAP, the world leader in business intelligence applications, supports a huge range of industry platform allowing for system growth and upgrade capability. SAP offers the most proven and reliable system, though it is quite expensive and complex. Next example is MICROSOFT, though by far the world's leader in software development is relatively novice to the enterprise resource planning market where most business intelligence applications feature. Microsoft's BI applications target individual and small-business users and medium-size corporations. We also have SAS, which specialized in real-time data management through statistical, and risk management analyses. SAS is ranked number one among "100 best companies to work for in 2010" by Fortune Magazine. IBM COGNOS provides retail BI and performance software supported through open source platforms such as Linux and UNIX. There are lots of business intelligence service providers in the marketplace and in order to select the right one for an organization, one must elaborate the proper implementation strategy; hence, our next topic – its limitations.

Limitations of Business Intelligence

If it is such a great tool, *"So how come Business Intelligence didn't predict the World Economic Crisis"*? (Peter James Thomas, 2010) The recent economic crisis has been blamed on too many complex

financial variables backed by bad Business Intelligence (data quality issue). Indeed, Business Intelligence is dominated by data analysis paradigms or patterns that are no longer suited to the massive amount of complex data in this global corporate environment. Business intelligence is to support business entities in order to make better decisions making, reducing risks and not to warn us of every eventuality.

Unfortunately, business intelligence is often presented as capable of achieving the impossible: Business clairvoyance. Business Intelligence analyses the fact by looking into the past and search for patterns in order to discover correlation, and make inferences. It does not tell anything about the causal future.

Another problem is the latency of information retrieval. Business intelligence analysis requires to capture information and to store in a single location for effective data analysis, but making it difficult and time-consuming to access. Business teams have adapted to this environment by creating user maintained databases and manual to support new types of reporting and analysis. This has resulted in inconsistent data, redundant data storage, significant resource use for maintenance, and inefficient response to changing business needs. Therefore, to avoid mishandling these tools, BI users must be skilled to know how to handle the complex flow of information at their disposal – an analytical background in interdisciplinary field such as Economics, Statistics, mathematics, marketing and operations research or maybe an MBA should be required.

Conclusion

Nowadays, businesses want to use the Business Intelligence efficiently to improve and optimize business processes, predict the market dynamics accurately. Organizations have reached a critical stage in global economic contest and the business intelligence is taking a significant role. However, it is unequivocal to notice a total misuse of this tool leading to more problems. It is very important that IT and end users know how to manage this huge flow of very complex data. They must focus on data quality and know how to use it. Also, a shift of paradigm is more than overdue. We must learn to be flexible and re-adapt with new approach. Business Intelligence is a wonderful tool that organization must learn to use wisely and practically, otherwise it will defeat the main purpose that is to help solve problems.

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